

REMARKS

Reconsideration and allowance of the claims are respectfully requested in view of the following remarks.

Claims 1 – 27 are pending in the present application.

In reference to Detailed Action Item 2:

Please Cancel Claims 24 and 25 without prejudice.

In reference to Detailed Action Item 3:

Claims 6 – 12 and 16 – 27, stand rejected under 35 U.S.C. §112 second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention.

With regard to the language of Claim 6 and 27, Applicants have amended Claims 6 and 27 to address the Examiner's concerns on structure. Applicant notes however, that the terminology "a high-pass gain," "a low-pass gain," and "an error signal" are not indefinite; each of these terms is introduced and identified in the detailed description. For example at page 4 in paragraphs 21-23. Moreover, the elements are clearly depicted on Figs. 4 and 5.

Regarding Claims 7, 9, 10, and 11, these claims have been amended to correct the antecedent basis.

Regarding Claim 16, Applicants respectfully contend that the Examiner's suggestion that "feel back torque" is unclear and lacks sufficient structure is improper. Applicants do not believe any structure is required for this element in the claim. The specification discloses in paragraph 27, about the operation of feel back torque and the differential actuator 22. If the Examiner considers this insufficient, the last line of the claim could be amended to read "for controlling a feel back torque to said input device".

Regarding Claims 21 and 23, Applicants contend not additions explanation is necessary as discussed for Claim 6 above. Applicants respectfully request a detailed explanation of why the Examiner considers these terms "unknown in the art" despite the teaching of the specification and figures as identified.

Regarding Claim 23, Applicants respectfully contend that "a summing function" is not indefinite. Applicant's recognize the language may be confusing, but not indefinite. The summing function receives as inputs: a signal, which is also the input to the low pass filter. Another input to the summer is the output of the low pass filter. The summer provides as an output, an input to a high pass gain function.

In reference to Detailed Action Item 4:

Claims 1, 6 – 11, 13, and 27 stand rejected under 35 U.S.C. 102(e) as being anticipated by Kaufmann et al. U.S. Patent 6,370,460.

Applicants respectfully suggest that the explanation provided in the Office Action mischaracterizes the teaching of Kaufmann et al.

In order to anticipate a claim under 35 U.S.C. § 102, a single source must contain all of the elements of the claim. *Lewmar Marine Inc. v. Barient, Inc.*, 827 F.2d 744, 747, 3 U.S.P.Q.2d 1766, 1768 (Fed. Cir. 1937), *cert. denied*, 484 U.S. 1007 (1988). Moreover, the single source must disclose all of the claimed elements "arranged as in the claim." *Structural Rubber Prods. Co. v. Park Rubber Co.*, 749 F.2d 707, 716, 223 U.S.P.Q. 1264, 1271 (Fed. Cir. 1984). Finally, missing elements may not be supplied by the knowledge of one skilled in the art or the disclosure of another reference. *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 780, 227 U.S.P.Q. 773, 777 (Fed. Cir. 1985).

Regarding Claims 1, 6, and 27, Applicants respectfully suggest that the explanation provided in the Office Action mischaracterizes the teaching of Kaufmann et al. Specifically, Kaufmann et al. does not teach or disclose a method for controlling a feel back torque of a motor. Kaufmann et al. is a steer-by-wire control system and does not address the teachings of controlling a feel back torque such as in an active steering system as claimed. Moreover, Kaufmann et al. does not disclose or teach, "filtering the received signal into a plurality of frequency bands; and applying a gain to at least one of the filtered frequency bands in correspondence with at least one of the received signal and a low-pass portion of the received signal to provide a motor command." The explanation provided in the office action suggests that this element is inherent in "frequency based compensator" element 39. Frequency based compensator 39 as taught in Kaufmann et al does not act on a signal that is indicative of a difference between a desired motor position and an actual motor position as claimed. The Examiner's attention is directed to figure 2 where compensator 39 is employed in steering wheel control unit 30 which is not at all using a signal that is indicative of a difference between a desired motor position and an actual motor position. The signal that compensator 39 acts upon is a torque signal. See Col. 2 lines 54 – Col 3, line 5. Therefore, because Kaufmann et al. does not disclose or teach an element of the invention it cannot anticipate Applicants' claims. Thus, Claims 1, 6, and 27 are allowable, the rejection is improper and should be withdrawn.

With regard to Claims 2 – 5, these claims include the abovementioned limitations and based on the arguments above are therefore now allowable. Additionally, Claims 2 – 5

depend from Claim 1, which is now allowable based upon the abovementioned reasoning, and therefore because these claims depend from a claim that is allowable, they too are allowable and the rejections should be withdrawn. MPEP 2143.03.

With regard to Claims 7 – 11, these claims also include the abovementioned limitations and based on the arguments above are therefore now allowable. Additionally, Claims 7 – 11 depend from Claim 6, which is now allowable based upon the abovementioned reasoning, and therefore because these claims depend from a claim that is allowable, they too are allowable and the rejections should be withdrawn. MPEP 2143.03.

Claims 16, 17, 21, 24, and 25 stand rejected under 35 U.S.C. §102(e) as being anticipated by Phillips U.S. Patent 6,370,459.

With regard to Claims 16, 17, 21, 24, and 25, Applicants respectfully suggest that the explanation in the Office Action mischaracterizes the teachings and disclosure of Phillips. Applicants respectfully contend that Phillips does not disclose a differential actuator as cited in the office action. The cited element 712/722 is described as a speed reduction means (712) and gear reduction means (722). This is not the same as the differential as claimed. In fact it does not operate as a differential actuator either, the speed reduction means is a fixed actuator linked to the steering of the wheels, not a differential actuator. In fact, in order to isolate the electric motor 26 from the steering system in the event of a failure Phillips specifically teaches having to disconnect the motor via a clutching mechanism.

"It is highly desirable that, should the powered assist to steering provided by the system 710 be terminated by the electronic control means 32 *a* in this manner, or should the system 710 otherwise fail, the vehicle can still be steered manually. Isolating the gear reduction means 722 and the electric motor 26 from the mechanical path of manual steering, however, substantially improves the ease of such manual steering. Without isolation, the driver would have to apply an additional torque, over and above that required for steering, in order to overcome the hindrance to steering presented by needing to manually drive the gear reduction means 722 and the electric motor 26. Accordingly, as shown in FIGS. 1 and 2, it is preferred that the system 710 further comprise clutch means 724 between the reduction gear means 722 and the supplemental pinion shaft 178. As is standard, the clutch means 724 is electrically activated during normal operation of the system 710, and reverts to its default disengaged condition should the system 710 become inoperative."

Therefore, because Phillips does not disclose the elements of the invention it cannot anticipate Applicants Claims. Thus, the rejections should be withdrawn, as Claims 16, 17, 21, 24, and 25 are in a condition for allowance.

Claims 14, 15, and 26 have been rejected under 35 U.S.C. §102(b) as being anticipated by Kuzuya et al. (U.S. Patent No. 5,859,774)

With regard to Claims 14, 15, and 26, Applicants respectfully contend that the explanation provided in the office action mischaracterizes the disclosures of Kuzuya et al. Kuzuya does not teach or disclose, "receiving a stability input indicative of a dynamic stability input indicative of a dynamic stability of the motor vehicle" as suggested in the Office Action. In fact, the section cited by the Examiner is a portion of Kuzuya where control for dynamic stability is being computed. This is not equivalent to the claimed invention. Note that Kuzuya is drawn to a stability control system for an automatic control system, and therefore, obviously similar terminology is to be expected. Additionally, Kuzuya does not disclose or teach "filtering the correction signal into a plurality of frequency bands." While Kuzuya does teach "a plurality of bands", this plurality of bands is relative to the system response characteristics which are divided to arrive at lower order responses (a common simplification technique) Col. 8, line 42 - 46, it does not teach the filtering of the correction signal into a plurality of frequency bands. It should be noted that the Examiner even acknowledged this failing in the previous Office Action dated November 08, 2002. Finally, Kuzuya does not disclose or teach applying a gain to at least one of the filter bands to produce an output signal corresponding to a desired feel back torque" Kuzuya includes no disclosure of feel back torque and torque control, and is instead addressing a steering angle control. The section cited by the Examiner in the office action is addressing applying again to the steering angle difference signal. This is not at all equivalent to a gain applied to selected frequency bands to produce an output signal corresponding to a desired feel back torque. Therefore, because Kuzuya does not teach one or more elements of the invention it cannot anticipate the claims. Thus, Claims 14 and 26 are allowable, the rejection is improper and should be withdrawn.

With regard to Claims 15, this claim includes the abovementioned limitations and based on the arguments above are therefore now allowable. Additionally, Claim 15 depends from Claim 14, which is now allowable based upon the abovementioned reasoning, and therefore because this claim depends from a claim that is allowable, it too is allowable and the rejections should be withdrawn. MPEP 2143.03.

Claims 2 and 3 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Kaufmann et al. U.S. Patent 6,370,460 in view of Phillips U.S. Patent 6,370,459.

Applicants respectfully contend that the explanation provided in the office action mischaracterizes the disclosure of Kaufmann et al. and Phillips, and further contends that it would not have been obvious to one with ordinary skill in the art at the time the invention was made to include an element as suggested. Moreover, one skilled in the art would not be

motivated to formulate the combination suggested in the office action because neither Kaufmann et al. nor Phillips include the requisite motivation for such a combination.

For an obviousness rejection to be proper, the Examiner must meet the burden of establishing that all elements of the invention are disclosed in the prior art; that the prior art relied upon, coupled with knowledge generally available in the art at the time of the invention, must contain some suggestion or incentive that would have motivated the skilled artisan to modify a reference or combined references; and that the proposed modification of the prior art must have had a reasonable expectation of success, determined from the vantage point of the skilled artisan at the time the invention was made. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988); *In Re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970); *Amgen v. Chugai Pharmaceuticals Co.*, 927 U.S.P.Q.2d, 1016, 1023 (Fed. Cir. 1996). See MPEP 2143

Establishing a prima facie case of obviousness requires that all elements of the invention be disclosed in the prior art. *In Re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970).

Further, even assuming that all elements of an invention are disclosed in the prior art, an Examiner cannot establish obviousness by locating references that describe various aspects of a patent applicant's invention without also providing evidence of the motivating force which would have impelled one skilled in the art to do what the patent applicant has done. *Ex parte Levengood*, 28 U.S.P.Q. 1300 (Bd. Pat. App. Int. 1993). The references, when viewed by themselves and not in retrospect, must suggest the invention. *In Re Skoll*, 187 U.S.P.Q. 481 (C.C.P.A. 1975).

Considering Claim 2 and 3, Applicants respectfully contend that the explanation provided in the office action mischaracterizes the disclosure of Kaufmann et al and/or Phillips. Specifically, as stated with the arguments for Claim 1,6, and Claim 16 presented above, neither Kaufmann et al. nor Phillips alone or in combination, disclose or teach each of the elements in the claimed invention.

With regard to Claims 3, this claim includes the abovementioned limitations and based on the arguments above are therefore now allowable. Additionally, Claim 3 depends from Claim 2, which is now allowable based upon the abovementioned reasoning, and therefore because this claim depends from a claim that is allowable, it too is allowable and the rejections should be withdrawn. MPEP 2143.03.

Claims 4 and 5 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Kaufmann et al. U.S. Patent 6,370,460 in view of Kuzuya U.S. Patent 5,859,774.

Considering Claim 4 and 5, Applicants respectfully contend that the explanation provided in the office action mischaracterizes the disclosure of Kaufmann et al and/or

Kuzuya et al. Specifically, as stated with the arguments for Claim 1 and Claim 14 presented above, neither Kaufmann et al. nor Kuzuya et al. alone or in combination, disclose or teach each of the elements in the claimed invention.

Therefore, because neither Kaufmann et al. nor Kuzuya et al. alone or in combination, disclose or teach each of the elements in the claimed invention, the Examiner has not made a prima facie case for obviousness as to Claims 4 and 5, and the rejections should be withdrawn. Thus, Claims 4 and 5 are allowable and the rejections should be withdrawn.

Claims 12, 22, and 23 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Kaufmann et al. U.S. Patent 6,370,460 in view of Kurishige et al. U.S. Patent 6,450,287.

Considering Claim 12 and 22, Applicants respectfully contend that the explanation provided in the office action mischaracterizes the disclosure of Kaufmann et al. and/or Kurishige et al. Specifically, as stated with the arguments for Claim 6 and Claim 16 presented above, neither Kaufmann et al. nor Kurishige et al. alone or in combination, disclose or teach each of the elements in the claimed invention.

Therefore, because neither Kaufmann et al. nor Kurishige et al. alone or in combination, disclose or teach each of the elements in the claimed invention, the Examiner has not made a prima facie case for obviousness as to Claims 12 and 22, and the rejections should be withdrawn. Thus, Claims 12 and 22 are allowable and the rejections should be withdrawn.

With regard to Claims 23, this claim includes the abovementioned limitations and based on the arguments above are therefore now allowable. Additionally, Claim 23 depends from Claim 22, which is now allowable based upon the abovementioned reasoning, and therefore because this claim depends from a claim that is allowable, it too is allowable and the rejections should be withdrawn. MPEP 2143.03.

The amendments and arguments here presented are made for the purposes of better defining the invention, rather than to overcome the rejections for patentability. The claims were not amended to overcome the prior art and therefore, no presumption should attach that either the claims have been narrowed over those earlier presented, or that subject matter or equivalents thereof to which the Applicants are entitled has been surrendered. Support for these amendments can be found in the specification and claims as originally filed. No new matter has been introduced by these amendments. Consideration and allowance of the claims is respectfully requested in view of the amendments and following remarks. Moreover, the amendments as presented do not alter the scope of the claimed invention and therefore cannot necessitate a new grounds rejection.

It is believed that the foregoing remarks are fully responsive to the Office Action and restriction and that the claims herein should be allowable to the Applicants. Accordingly, reconsideration and withdrawal of the rejections are requested.

In the event the Examiner has any queries regarding the instantly submitted response, the undersigned respectfully requests the courtesy of a telephone conference to discuss any matters in need of attention.

If there are any additional charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 06-1130.

Respectfully submitted,

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Date: June 17, 2003

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